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LEXMARK INTERNATIONAL, INC.
INTELLECTUAL PROPERTY LAW DEPARTMENT
740 WEST NEW CIRCLE ROAD
BLDG. 082-1
LEXINGTON, KY 40550-0999

EXAMINER	
RASHID, DAVID	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/763,129	THAKUR, KHAGESHWAR	
	Examiner	Art Unit	
	DAVID P. RASHID	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

[1] A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 16, 2008 has been entered.

Amendments

[2] This office action is responsive to the claim amendment received on June 16, 2008. Claims 1-26 remain pending.

Claim Rejections - 35 USC § 101

[3] 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

[4] **Claim 23** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The "computer-readable medium containing instructions for processing" is supported by software/program enablement which is non-statutory as supported in the original disclosure.

Claim Rejections - 35 USC § 112

[5] The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[6] **Claim 23** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. Claim 23 cites "[a] computer-readable medium" but the original discourse does not support what in fact a computer-readable medium is. A computer-readable medium can be regarded as nothing more than a carrier wave or program, thus imitating non-statutory subject matter under 35 U.S.C. 101.

Claim Rejections-35 USC § 102

[7] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[8] **Claims 1-4, 13-16,** and **22-23** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,411,015 (issued Oct. 18, 1983, *hereinafter* "Scherl et al.").

Regarding **claim 1**, *Scherl et al.* discloses a method of classifying (1:40-44; fig. 1) an image (fig. 1, item D), the method comprising:

obtaining an image (2:19-24; fig. 1, items D, V, A/D, D);

determining one or more classification thresholds ("t" at 3:30-32);

determining a concentration ratio ("K" at 3:16-28) for the image that indicates a relative level of smoothness of a distribution of an entire population of items in the image ("K" indicates "a relative level of smoothness" of a distribution of an entire population of items in the image);

comparing the concentration ratio to at least one of the one or more classification thresholds ("less than" and "greater than or equal" at 3:33-36); and

classifying the image ("image area" and "text area" at 3:33-36) based on the comparison of the concentration ratio to at least one of the one or more classification thresholds.

Regarding **claim 2**, *Scherl et al.* discloses the method as claimed in claim 1 wherein determining the concentration ratio ("K" at 3:16-28) for the image (2:19-24; fig. 1, items D, V, A/D, D) includes determining the luminance components of pixels ("brightness" at 3:16-28 wherein luminance is used in the video industry to characterize the brightness of displays) in the image.

Regarding **claim 3**, *Scherl et al.* discloses the method as claimed in claim 1 wherein determining the concentration ratio ("K" at 3:16-28) for the image (2:19-24; fig. 1, items D, V, A/D, D) includes determining the grayscale components ("grayscale value" at 3:16-28) of the image.

Regarding **claim 4**, *Scherl et al.* discloses the method as claimed in claim 1 wherein determining the concentration ratio ("K" at 3:16-28) for the image (2:19-24; fig. 1, items D, V, A/D, D) includes generating a histogram (fig. 2; fig. 3; "histograms" at 3:12-16) for the image.

Regarding **claim 13**, claim 1 recites identical features as in the image classifying processor (fig. 1, item R) of claim 13. Thus, references/arguments equivalent to those presented above for claim 1 are equally applicable to claim 13.

Regarding **claim 14**, claim 2 recites identical features as in the image classifying processor (fig. 1, item R) of claim 14. Thus, references/arguments equivalent to those presented above for claim 2 are equally applicable to claim 14.

Regarding **claim 15**, claim 3 recites identical features as in the image classifying processor (fig. 1, item R) of claim 15. Thus, references/arguments equivalent to those presented above for claim 3 are equally applicable to claim 15.

Regarding **claim 16**, claim 4 recites identical features as in the image classifying processor (fig. 1, item R) of claim 16. Thus, references/arguments equivalent to those presented above for claim 4 are equally applicable to claim 16.

Regarding **claim 22**, claim 1 recites identical features as in the image processing system (fig. 1) of claim 22. Thus, references/arguments equivalent to those presented above for claim 1 are equally applicable to claim 22.

Regarding **claim 23**, claim 1 recites identical features as in the computer-readable medium containing instructions (2:28-31; fig. 1, items S, R wherein the computer R needs instructions to perform the actions cited at 2:28-31) for processing an image (fig. 1, item D) of claim 23. Thus, references/arguments equivalent to those presented above for claim 1 are equally applicable to claim 23.

Claim Rejections-35 USC § 103

[9] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

[10] **Claims 5-10** and **17-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Scherl et al.* in view of U.S. Pub. No. 2002/0067857 (published Jun. 6, 2002,*hereinafter* "Hartmann et al.").

Regarding **claim 5**, while *Scherl et al.* discloses the method as claimed in claim 1, *Scherl et al.* does not teach wherein determining one or more classification thresholds includes a training process.

Hartmann et al. discloses a system and method for classification of images and videos (fig. 1) that teaches determining one or more classification thresholds (fig. 7, item 860; "one or more predetermined classification parameters" in ¶ [0120]) by including a training process (¶ [0068], fig. 7; "The classification determination uses a trained model." in ¶ [0120]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for determining the one or classification thresholds of *Scherl et al.* to include a training process as taught by *Hartmann et al.* as "[t]he method classifies the training images from at least one operating parameter 840, yielding overall accuracy.", *Hartmann et al.*, ¶ [0068] and "…to improve the accuracy of the classification of the second group of images.", *Hartmann et al.*, ¶ [0120].

Regarding **claim 6**, while *Scherl et al.* in view of *Hartmann et al.* disclose the method as claimed in claim 5, *Scherl et al.* in view of *Hartmann et al.* do not teach wherein the training process includes analyzing a set of images having known classifications.

Hartmann et al. discloses a system and method for classification of images and videos (fig. 1) that teaches wherein a training process (¶ [0068], fig. 7; "The classification determination uses a trained model." in ¶ [0120]) includes analyzing a set of images having known classifications ("known classification" in ¶ [0120]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for determining the one or classification thresholds of *Scherl et al.* wherein a training process includes analyzing a set of images having known classifications as taught by *Hartmann*

et al. "…to improve the accuracy of the classification of the second group of images.", *Hartmann et al.*, ¶ [0120].

Regarding **claim 7**, while *Scherl et al.* in view of *Hartmann et al.* disclose the method as claimed in claim 6, *Scherl et al.* in view of *Hartmann et al.* do not disclose wherein analyzing a set of images having known classifications includes determining a concentration ratio for each image in the set of images.

Scherl et al. discloses wherein analyzing images ("video" in fig. 1) includes determining a concentration ratio ("K" at 3:16-28) for each image in the set of images.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the set of images having known classifications as taught by *Scherl et al.* in view of Hartmann to include determining a concentration ratio for each image in the set of images as taught by *Scherl et al.* "…to provide a method and apparatus for automatic recognition of image and text/graphics areas on a master which automatically separates such different information-containing areas and classified the separated areas properly.", *Scherl et al.*, 1, 40-44.

Regarding **claim 8**, while *Scherl et al.* in view of *Hartmann et al.* in claim 7 disclose the method as claimed in claim 7, *Scherl et al.* in view of *Hartmann et al.* do not disclose wherein determining the concentration ratio for each image in the set of images includes generating a histogram for each image.

Scherl et al. discloses wherein determining the concentration ratio ("K" at 3:16-28) for each image in the set of images ("video" in fig. 1) includes generating a histogram (fig. 2; fig. 3; "histograms" at 3:12-16) for each image.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the set of images having known classifications and determined concentration ratios

as taught by *Scherl et al.* in view of Hartmann in claim 7 to include generating a histogram of each image as taught by *Scherl et al.* "...to provide a method and apparatus for automatic recognition of image and text/graphics areas on a master which automatically separates such different information-containing areas and classified the separated areas properly.", *Scherl et al.*, 1, 40-44.

Regarding **claim 9**, while *Scherl et al.* in view of *Hartmann et al.* disclose the method as claimed in claim 5, and while Sherl discloses wherein determining one or more classification thresholds ("t" at 3:30-32) includes determining a threshold for text images ("t" at 3:30-36) and a threshold for other images ("t" at 3:30-36), Sherl does not teach wherein the other images are photographic images (since other images do not necessarily include photographic images).

Hartmann et al. discloses a system and method for classification of images and videos (fig. 1) that teaches classifying photographic images ("digital photos" in ¶ [0036]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the other image group of *Scherl et al.* to be photographic images as taught by *Hartmann et al.* so that "[t]he class of natural images encompasses all images taken from nature.", *Hartmann et al.*, ¶ [0036].

Regarding **claim 10**, while *Scherl et al.* in view of *Hartmann et al.* disclose the method as claimed in claim 5, and while *Scherl et al.* discloses wherein classifying the image based on the comparison of the concentration ratio to at least one of the one or more classification thresholds is performed according to the following:

If ($CR<T$), then image type = text (3:33-36 such that the inequality is negated)

If ($T\leq CR<P$), then image type = graphic

If ($P\leq CR$), then image type = other image (3:33-36 such that the inequality is negated)

where CR is a concentration ratio ("K" at 3:16-28) of the image, T is a threshold for text images ("t" at 3:30-36) and P is a threshold for photographic images ("t" at 3:30-36), Sherl does not teach wherein the other images are photographic images (since other images do not necessarily include photographic images).

Hartmann et al. discloses a system and method for classification of images and videos (fig. 1) that teaches classifying photographic images ("digital photos" in ¶ [0036]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the other image group of *Scherl et al.* to be photographic images as taught by *Hartmann et al.* so that "[t]he class of natural images encompasses all images taken from nature.", *Hartmann et al.*, ¶ [0036].

It must be noted that the negation of the inequalities at 3:33-36 of *Scherl et al.* are then equivalent to those of the examined application. Since variable K of *Scherl et al.* (concentration ratio CR) is between 0 and 1, the negation could either be [1] the simple result of inversion of K (1/K) or [2] the subtraction of K from 1 (1-K). It is shown that without mathematical negation, *Scherl et al.* achieves the same result as the examined application in that either above/below the threshold in comparison to the concentration ratio gives a text image, and that the opposite will be the other image (photographic image as further taught by *Hartmann et al.*).

Regarding **claim 17**, while *Scherl et al.* discloses an image classifying processor as claimed in ciam 13 and while *Scherl et al.* discloses wherein the processor includes a memory (fig. 1, item S) and the memory includes (The only memory disclosed in *Scherl et al.* is item S, thus the thresholds for the text and photographic images must be in item S.) a threshold for text images ("t" at 3:30-36), and threshold for other images ("t" at 3:30-36), Sherl does not teach

wherein the other images are photographic images (since other images do not necessarily include photographic images).

Hartmann et al. discloses a system and method for classification of images and videos (fig. 1) that teaches classifying photographic images ("digital photos" in ¶ [0036]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the other image group of *Scherl et al.* to be photographic images as taught by *Hartmann et al.* so that "[t]he class of natural images encompasses all images taken from nature.", *Hartmann et al.*, ¶ [0036].

Regarding **claim 18**, claim 10 recites identical features as in the image classifying processor (fig. 1, item R) of claim 18. Thus, references/arguments equivalent to those presented above for claim 10 are equally applicable to claim 18.

[11] **Claims 20-21** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,642,431 (issued Jun. 24, 1997) [*hereinafter* "Poggio et al."] in view of *Scherl et al.* et al.

Regarding **claim 20**, while *Poggio et al.* discloses a method of processing an image (fig. 1), the method comprising:

capturing an image (fig. 1, item 102) of an object (fig. 1, item 101);

classifying the image (fig. 1, item 106) in a class (3:29-34 wherein the class is images with the a face detected) using a threshold (a threshold must exist for the image classifier 106 to detect the presence of the face);

using the class to modify the operation (fig. 3, item 106; "neural network" at 6:40-47) of an image capturing device (fig. 1, item 100 including items 102 and 106); and

applying controlled, equalization (fig. 4, item 405) to an image generated by the image capture device (fig. 4, item 401) where the controlled, histogram equalization uses (the

controlled, histogram equalization step 405 uses the concentration ratio in that the obtained sample face patterns of step 401 used the concentration ratio to determine that they were in face images with detected faces) a threshold, *Poggio et al.* does not teach wherein the threshold is a concentration ratio that indicates a relative level of smoothness of a distribution of an entire population of items in the image.

Scherl et al. discloses a method for automatic recognition of image and text/graphics areas on a master wherein the threshold used is a concentration ratio ("K" at 3) that indicates a relative level of smoothness of a distribution of an entire population of items in the image ("K" indicates "a relative level of smoothness" of a distribution of an entire population of items in the image).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the threshold of *Poggio et al.* to include the concentration ratio that indicates a relative level of smoothness of a distribution of an entire population of items in the image as taught by *Scherl et al.* "to provide a method and apparatus for automatic recognition of image and text/graphics areas on a master which automatically separates such different information-containing areas and classifies the separated areas properly.", *Scherl et al.*, 1:40-43.

Regarding **claim 21**, while *Poggio et al.* discloses an image processing system (fig. 1) comprising:

an image capture device (fig. 1, item 102);

an image classifier (fig. 1, item 106) coupled to the image capture device in a feedback loop (fig. 3, item 106; "neural network" at 6:40-47); and

a controlled, equalization (fig. 4, item 405) processor (fig. 1, item 110) coupled to the image capture device that uses a threshold (a threshold must exist for the image classifier 106 to

detect the presence of the face), *Poggio et al.* does not teach wherein the threshold is a concentration ratio that indicates a relative level of smoothness of a distribution of an entire population of items in the image.

Scherl et al. discloses a method for automatic recognition of image and text/graphics areas on a master wherein the threshold used is a concentration ratio ("K" at 3) that indicates a relative level of smoothness of a distribution of an entire population of items in the image ("K" indicates "a relative level of smoothness" of a distribution of an entire population of items in the image).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the threshold of *Poggio et al.* to include the concentration ratio that indicates a relative level of smoothness of a distribution of an entire population of items in the image as taught by *Scherl et al.* "to provide a method and apparatus for automatic recognition of image and text/graphics areas on a master which automatically separates such different information-containing areas and classifies the separated areas properly.", *Scherl et al.*, 1:40-43.

Allowable Subject Matter

[12] **Claims 11-12, 19,** and **24-26** allowed.

Response to Arguments

[13] Applicant's arguments filed on June 16, 2008 with respect to **claims 1-23** have been respectfully and fully considered, though they are not found persuasive.

Summary of Remarks regarding **claims 1, 13,** and **20-23:**

Applicant argues that many there are many examples that can be made by Applicant in demonstrating the dissimilarities between the equation of *Scherl et al.* and the present invention,

not just "specific and isolated exceptions". For example, in the Example 4 provided by the Examiner, it is clear that it does not matter what the distribution is below the cut-off value of 204, the only concern is the quantity of values above and the quantity of values below the cut-off value. In other words, the same results for K are obtained even if, rather that 10 values at level 200 (as in Example 4) below the cut-off of 204, there were 5 values at level 20, 2 values at level 50, 3 values at level 200; or 6 values at level 100 and 4 values at level 200; and so on. The point is that the equation, i.e., K, of *Scherl et al.* does not indicate a relative level of smoothness of a distribution of an entire population of elements in the image, and thus does not yield a "concentration ratio" in the context of the present Application. (Applicant Resp. at 10, June 16, 2008.)

Applicant submits that the variable K of *Scherl et al.* (see the equation for determining (K) in *Scherl et al.* at column 3, line 20) does not indicate a relative level of smoothness of a distribution of an entire population of elements in the image, as recited in claim 1 as amended. (Resp. at 11.)

Applicant supports the same argument above with respect to claim 20 (Resp. at 12-3) and claim 21 (Resp. at 13).

Examiner's Response regarding **claims 1, 13,** and **20-23:**

(i) However, the Examiner first addresses that the claim amendment of "determining a concentration ratio for the image that indicates a relative level of smoothness of a distribution of [[a]] an entire population of elements in the image" does not further limit the claim.

"[A]n entire population of elements in the image" (*emphasis added*) can be read as follows: (i) the image is constructed of a multitude of populations (*e.g.*, a single row, multiple columns, a block of pixels, all pixels of value 179, etc), and (ii) the "elements" being the pixel

values. "[A]n entire population" (*emphasis added*) can be read as whatever population is being addressed as indicated above (the image has a multiple of them), that entire population is undergoing the concentration ratio.

Furthermore, the claim is not referring to the entire population because there is only one entire population (*i.e.*, all the pixels in the image is the entire population). "[A]n entire population" (emphasis added) is only addressing one population that may or may not include the entire population.

Scherl et al. anticipates "an entire population of elements in the image" using the K equation (3:18-23). First the population in question is variable N in the equation, "the overall number of samplings" (3:26) taken in the image (which may or may not be the entire image, but is a population). However, the K equation takes that population in question and applies that "entire population" in that population. Thus, *Scherl et al.* anticipates "an entire population of elements in the image".

(ii) MPEP § 2131.03 (I) titled "A SPECIFIC EXAMPLE IN THE PRIOR ART WHICH IS WITHIN ACLAIMED RANGE ANTICIPATES THE RANGE" reads, in relevant part:

> "[W]hen, as by a recitation of ranges or otherwise, a claim covers several compositions, the claim is anticipated' if one of them is in the prior art." *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (citing *In re Petering*, 301 F.2d 676, 682, 133 USPQ 275, 280 (CCPA 1962)) (*emphasis in original*) (Claims to titanium (Ti) alloy with 0.6-0.9% nickel (Ni) and 0.2-0.4% molybdenum (Mo) were held anticipated by a graph in a Russian article on Ti-Mo-Ni alloys because the graph contained an actual data point corresponding to a Ti alloy containing 0.25% Mo and 0.75% Ni and this composition was within the claimed range of compositions.).

MPEP § 2131.03 (I).

The Examiner's appreciation of Applicant's invention does respectfully acknowledge that there may exist instances of equation K such that *Scherl et al.* does not anticipate the independent claims in question (the "specific and isolated exceptions" is correctly undeterminable). However, the Examiner again stresses that so long as there does exist a specific example on the side of anticipation for which "K" does not contradict the Applicant's representation of concentration ratio and smoothness, "K" (and thus *Scherl et al.*) is anticipating the claims in question. *See* Example 1, Example 2 in Final Rejection, s. 31, p. 12, Mar. 17, 2008.

(iii) Applicant states:

> *Scherl et al.* does not indicate a relative level of smoothness of a distribution of an entire population of elements in the image, and thus does not yield a "concentration ratio" in the context of the present Application.

Resp. at 10.

The Examiner respectfully submits that not anticipating "a relative level of smoothness" is highly subjective and indefinite, as there is no degree of what "a relative level of smoothness" in fact is. The Examiner has provided clear-cut examples of performing smoothness (under the Applicant's definition of smoothness) in the examples provided in the previous Office Action. *See* Example 3, Example 4 in Final Rejection, s. 32, p. 14, Mar. 17, 2008.

Positive Statement

[14] The following is a positive statement with regard to whether the independent claims in question satisfy 35 USC § 101.

Claims 1 and 11 are directed to "obtain[[ing]] an image" and then "classify[[ing]] the image". Explicit support is found in fig. 12, item 160 that explicitly states that "[t]he processor

152 may first retrieve an image" by either "memory or from an image capture device such as a scanner or digital camera" with no other suggestion of non-statutory enablement (*e.g.*, software).

Claims 13 and 19 are directed to "[[the]] [a] processor configured to obtain an image" which is hardware that is statutory.

Claims 20, 24 are directed to "capur[e][[ing]] an image" and then "classify[[ing]] the image". The action of "capturing" is explicitly supported by "an image capture device such as a scanner or digital camera" with no other suggestion of non-statutory enablement (*e.g.*, software).

Claims 21-22 and 25-26 are directed to "[a]n image processing system" including "an image capture device". "An image capture device such as a scanner or digital camera" is explicitly supported with no other suggestion of non-statutory enablement (*e.g.*, software).

Conclusion

[15] All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

[16] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Rashid whose telephone number is (571) 270-1578. The examiner can normally be reached Monday - Friday 8:30 - 17:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571) 272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David P. Rashid/
Examiner, Art Unit 2624

David P Rashid
Examiner
Art Unit 2624

/Vikkram Bali/
Supervisory Patent Examiner, Art Unit 2624